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UNITED NATIONS EDUCATIONAL, SCIENTIFIC AND CULTURAL ORGANIZATION

PREFACE

THIS IS THE FIRST ISSUE of a quarterly Bulletin to be published by the Fundamental Education Division of Unesco; and, since it is a beginning, it must be experimental in character. The readers themselves should determine the policy and content of a journal. We hope it will be so in this case.

About six months ago the Fundamental Education Division set up a Clearing House to collect technical information from all parts of the world. The important word here is 'technical', since we are concerned with techniques, with methods, curricula and materials; in fact, the information which interests practical people working in the field of fundamental education. The function of a Clearing House, however, is to be active. Documents and materials must be collected in order to be re-presented and made available to a wider public. Hence the Bulletin.

The contents of this issue will be found to fall into three groups: articles on important projects or other aspects of fundamental education, written by authorities on the spot; statements by the Unesco secretariat, unsigned, discussing programme and policy; and lastly, the brief notes which serve to describe Clearing House contents. Since space is limited, our notes and reviews are confined to publications received. To cover the wider field of unpublished documents and bibliography, the Clearing House is to issue a monthly Abstract in simple format, starting at the end of February. Readers who wish for fuller information, or for copies of documents, are requested to write to Unesco – *observing, when they do so, the correct procedure laid down by their own governments for correspondence with Unesco.*

In another direction, too, it is hoped that readers will become writers. The selection of material for the Bulletin, and opinions expressed, are matters of controversy. But improvements can only be made as more facts about fundamental education all over the world are recorded. Critical correspondents are invited, therefore, to add to the Clearing House by providing some data on work in which they themselves are engaged or interested.

THE TRAINING OF WORKERS FOR FUNDAMENTAL EDUCATION

by MARGARET READ

WHEN I WAS ASKED to contribute this paper to the Bulletin, I was given a free hand to treat the subject in whatever way I chose. It has seemed to me that the most useful approach at this stage would be a general and analytical one, which could be followed in later articles by descriptive accounts of actual training courses held, such as that conducted by Dr. S. Y. Ch'u at the College of Rural Reconstruction in China, or the training in mass literacy methods carried out by Mrs. Hay in Northern Rhodesia.

I am assuming first of all in this paper that we are concerned with peasant societies. Fundamental education can, we all know, be applied among under-privileged peoples in cities and on large-scale plantations. But the basic sociological conditions of those two types of economy are so different from those of the peasant farmer that any attempt to combine the approach is bound to be misleading.

There is a second assumption which should also be stated explicitly, as much confusion arises when it is ignored. In most economically backward or undeveloped areas there are, broadly speaking, two methods of improving conditions. One is that of large-scale planning, such as the projects carried out by the T.V. A., which call for greatly increased technical training of a selected number of people, and for a specialized kind of adult education to secure the co-operation and participation of the local inhabitants in the benefits of these schemes. The second method I should describe as 'local self-help', on the lines of Dr. Hatch's experiment at Martandan in Southern India, where mechanization and the consequent technical training are not of first importance, and where the objective is a gradual 'stepping-up' of standards of production and levels of living.

It is with this second method that I am concerned in this discussion of training. I should like here to acknowledge my indebtedness to Dr. Harold B. Allen of the Near East Foundation, whose book *Come into Macedonia* suggested to me a systematic approach to fundamental education work, and who has helped me from his wide experience in the Middle East to think out these problems in recent discussions.

We assume therefore that we are thinking about peasant societies and about fundamental education of a 'self-help' type. In these conditions there should be at least three elements in the training of workers which I will call for the sake of brevity: the approach, the content, and the technique. As we are concerned with the training of workers, and not with other aspects of the organization of fundamental education campaigns, we can ignore for the present any distinctions between paid workers and voluntary workers, and between workers from outside the locality and those who belong to it.

The approach depends on the adaptation of the content of the programme and of teaching techniques to the needs and outlook of adults. It depends also on the willingness of the group of workers to work together as a team. It depends lastly on an adequate knowledge of the locality and the society where the work is to be done. Let us take the last first.

I find that most people who have carried out experiments in fundamental education agree that a basic survey of the area and the people is an essential preliminary. Though a team of workers may not have the necessary qualifications for planning such a survey, it is of the first importance that they should be associated with

the survey as helpers, and should understand why it is being carried out and what use is going to be made of the information. In other words the team should have a systematic knowledge of the area where they are going to work. It is not wise to assume that because people live in an area they therefore know all about it. Whoever is doing the survey must have some sociological training and experience, and he should hand this on to the team of workers, so that they co-operate with him in collecting data, and become keen to add to the sociological information about the area and to check the results of their work in the sociological and economic changes which they see happening.

Under whatever conditions the campaign is carried out, there will be a team of workers, some of whom may play a leading, others a supporting, rôle. Acquiring a team spirit cannot be taught directly, but the various elements in the training can be so planned that the workers learn to co-operate in planning and in action, and to depend on each other, and to respect each member of the team for his particular contribution.

I find that the adult approach in teaching and in demonstration is seldom either fully understood or whole-heartedly practised. It is based primarily on the recognition that all adults have experience behind them – of working for their livelihood, of living in family and village groups, or organizing themselves for particular purposes. This adult experience must be the basis of all teaching and demonstration, and the adults must be encouraged to 'discover' their own experience, to relate it to the new ideas which are being presented, and to discuss the possible results of taking the new action which is suggested. Such an approach is slow and exacting, and calls for patience, imagination and flexibility in the workers. But it is the only sure foundation on which to build, and it often produces unexpectedly quick results. There is now a wealth of experience in adult education in many parts of the world, which can be drawn on to provide examples of how such an approach can be presented. If the presentation is well done it can be stimulating and amusing to the workers, and it can lead to all kinds of successful adaptations.

There is probably little that is controversial about this approach in fundamental education. There is, however, much that is controversial in the content of a fundamental education campaign. As I see it, a campaign is not just a slow progress towards improved conditions of living, but it is a determined effort to achieve a definite goal in a limited time. Hence there must be a decision to attack and overcome certain obstacles to progress. In a peasant society these are generally in the field of improved agriculture and rural economy, with improved nutrition, homecraft and hygiene. Conditions vary in different areas, but it seems important everywhere that the team of workers should have an over-all picture of the improvements that are to be aimed at, and a clear idea of how, for example, agriculture, nutrition and health are interrelated. The workers in their teaching and demonstration will probably each have a distinctive field to work in, but their training should include an appreciation of the essential unity in the work and life of peasant farmers – a unity which no one denies, but which needs reiterating when new ideas are being put across.

There are two other elements in this unity of peasant life and work which need special emphasis. One arises from the basic survey, which should have made clear what local organization, if any, exists to regulate economic and other activities. If improved methods of cultivating, or marketing, or making local crafts, are going to take root, they will need to have some organizational basis on which to coordinate the individual initiative. Hence the team of workers must be ready to recognize and foster guilds, societies, committees, councils, which will take hold of new ideas and, at least to some extent, ensure their continuity.

The other element is the relation of day to day work for a livelihood with opportunities for recreation and for aesthetic expression in a communal form.

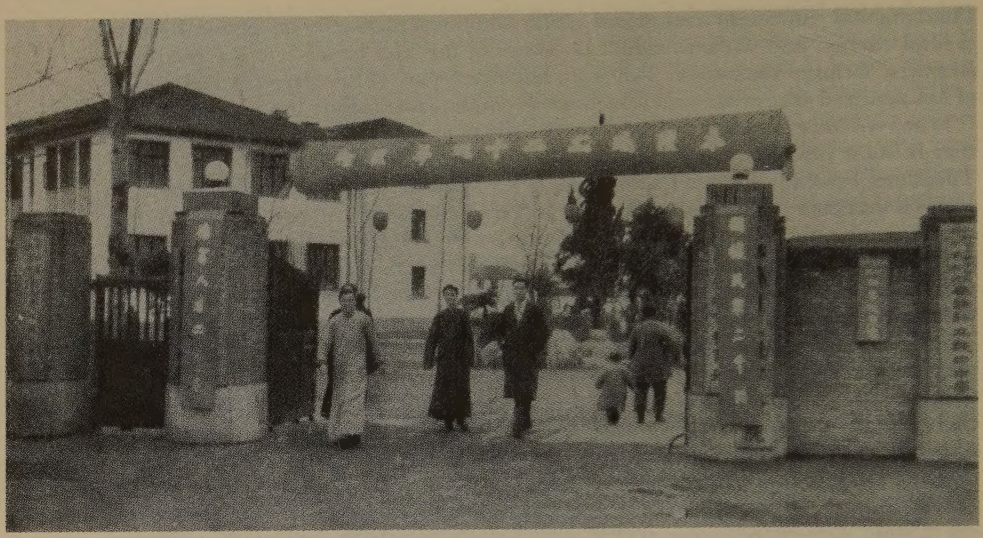
Fundamental education campaigns make additional demands on physical and mental energy, and workers should be aware of this and be alive to the need to stimulate forms of recreation. This is an important part of the general integration of fundamental education work which needs emphasizing during the training.

When we come to techniques we come to a still more controversial field. I maintain that in most peasant societies illiteracy is the biggest single obstacle to progress. Therefore, I put adult literacy techniques in the forefront of the training of workers. If this is accepted by those planning fundamental education campaigns, then they must also plan for the production of literature to follow up the literacy campaign and to support their teaching and demonstration in the fields of agriculture, health and homecraft. In a team of workers it is likely that some are better than others at writing the small booklets that are needed in the early stages of the campaign. These potential writers should, however, consult their fellow workers in the initial preparation of this literature, and enlist their co-operation in its sale and distribution, and in checking what is successful and what is not. Adult literacy campaigns cannot be undertaken light-heartedly without adequate preparation and concentrated effort. It should be required, therefore, that all workers in the team know how to teach reading and writing to adults, whether their job is in a specialized field like agriculture, or homecraft, or cinema operation, or sanitation. This basic training in adult literacy techniques should assist further in unifying the team of workers by focusing their attention on a task in which all must share.

If filmstrips and films and other visual and aural techniques can be used in the campaign, all the workers in a team should understand why they are being used and what the possible difficulties are in their presentation. Team workers can, for example, mingle among the audience at a film show and report comments, and so assist in the better use of a cinema unit and its selection of films.

I have purposely not made any reference to the length of training courses, and the relation of practical work to training in a centre away from the actual field of work. In general it seems of much use giving training in a centre to people who know nothing of the field problems. The best way is, of course, to give training in a centre at intervals, with practical work in between. Certain kinds of training courses can be given in a centre such as a university or teacher training college or agricultural college. Some, and perhaps the most successful training so far, has been given on the spot by experienced workers to those less experienced. Such matters, however, as time and place, are best discussed in relation to local conditions, and it is to be hoped that some accounts of training courses already held will follow this general introduction.

London,
October 1948.



Main entrance to College.

TRAINING FUNDAMENTAL EDUCATION LEADERS AT THE KIANGSU PROVINCIAL COLLEGE OF EDUCATION, WUSIH, CHINA

by Professor Paul T. T. Chow
Translated by President Ren-Chi Tung

Purpose of the College

Among more than two hundred colleges and universities of present-day China, only three colleges are institutions of social education where leaders can train for the work of enlightening the great masses. They are: the College of Rural Reconstruction in Pa Hsien, Szechwan, a privately endowed college run by Dr. James Yen and created during the last war after his many years in the Mass Education Movement; the National College of Social Education, first established in Szechwan in 1940 and later moved to Soochow with a branch near Nanking; and third, the Kiangsu Provincial College of Education, established in 1928 at Wusih, moved to Kueilin during the war, and rehabilitated at its original site immediately after the war. This college, the first of its kind to be established, has survived many handicaps and still maintains its original nature. Its chief purposes, as outlined in a September 1947 bulletin, *A Brief Review of the Work of Fundamental Education,* are twofold, namely:

1. To train leaders of social education (which in present-day China lays special stress upon adult fundamental education), with reaching the masses of the people as its goal;

2. To experiment in and apply such methods of social education as may really help rebuild a better society and a happier country.

The purpose of this article is to sketch briefly how the College trains its students especially for the work of rural adult education. Though none of its undertakings in this phase of work has reached the point of perfection, and many of its pre-war activities have been curtailed, chiefly due to limited financial support from the provincial government, yet the departure from ordinary college education and the new lines of educational endeavour which this college has so far followed are worthy of mention.

Administrative and scholastic components of the College

Like most colleges and universities, the administrative organization of the College comprises three main offices under the leadership of the President – those of the Dean of Studies, of the Disciplinarian and of the Business Manager. But in addition, the College has a fourth department, of Research and Experimentation, which has charge of all the activities of research and experimental work undertaken chiefly by upper division students under the supervision and guidance of their professors. This department works in collaboration with the Dean of Studies and with the different scholastic departments and short training courses. It helps train students in field work in the experimental areas and stations and in research studies in laboratories and research rooms.

The scholastic organization consists of two four-year departments, namely the Department of Social Education and the Department of Agricultural Education, and of two two-year courses, namely, the Course of Audio-visual Education and the Course of Handicrafts and Home Economics.

The present enrolment is as follows:

	NUMBER OF STUDENTS	
	MALE	FEMALE
1. *Department of Social Education:*		
a) Division of Social Education Administration	68	3
b) Division of Social Welfare	40	23
c) Division of Local Self-Government	26	—
d) Ungrouped students of the first three semesters	39	15
Total	173	41
2. *Department of Agricultural Education:*		
a) Division of Agronomy	26	4
b) Division of Horticulture	10	10
c) Division of Animal Husbandry	15	1
d) Division of Agricultural Economy	23	7
e) Ungrouped students of the first three semesters	32	19
Total	106	41
3. *Special Two-year Course of Audio-visual Education:*	48	13
4. *Special Two-year Course of Handicrafts and Home Economics:*	20	26
Total for the four components	347	121

Practice students help settle a village dispute.

Organization and content of curricula

Since Wusih differs from other colleges in its departments and courses, its curricula are somewhat independent of the standardized ones set for normal colleges by the Ministry of Education. For the Departments of Social Education and Agricultural Education, a student is required to take at least 132 credits of work in four years, including his practice work. Courses of study are grouped under four categories, namely, (i) general required courses for both departments, 47 credits, which include general practice work; (ii) departmental required courses for all divisions, 48 credits; (iii) divisional required and elective courses, 26 credits; (iv) general electives, 11–19 credits. Space does not permit the listing of all the courses of each department, so only a few sample courses for several divisions are given below as illustrations:

Division of Social Education Administration: Social Education Administration, History of Education, Philosophy of Education, Comparative Education, Research in Education, Mass Education Hall, Introduction to Library Science, Public Speaking, Audio-visual Education, Public Health, etc.

Division of Social Welfare: History of Social Evolution, Rural Sociology, Social Welfare, Social Legislation, Social Insurance, Labour Problems, Public Hygiene, Introduction to Co-operative Organization, Rural Economy, Social Psychology, etc.

Student dormitories – the Victory Halls.

Division of Agricultural Economics: Agricultural Statistics, Accounting, Agricultural Credit, Rural Sociology, Agricultural Co-operation, Marketing of Farm Products, Agricultural Policy, Land Economics, Agricultural Granary, etc.

In the two-year courses, a student is required to finish 75 to 80 credits of work before graduation. The curriculum of either course is composed of three groups of courses of study, namely, (i) general required courses, 30 credits; (ii) special required courses, 42 credits; and (iii) electives, 3–8 credits. Examples of the special required courses of the two-year Audio-visual Course are as follows: Theory and Practice of Visual Education, Theory and Practice of Broadcasting, Audio-visual Education Administration, Electro-dynamics, Principles of Wireless, Use and Repairing of Cinematograph, Use and Repairing of Radio, Photography, Darkroom Technique, Making of Filmstrips, Principles of Recording, Making of Motion Pictures, etc. The Handicrafts and Home Economics Course includes such items as Cooking, Food Chemistry, Clothing, Sewing, Child Psychology, Vegetable Gardening, Teaching of Home Economics, Handicrafts with straw, bamboo, rattan, etc.

System of student practice work

The practice system is a very important part of the College educational programme as it has long been the belief of the College that no student can do satisfactory work in social education after graduation merely with the book knowledge he has secured in his college years. The system is frequently revised in order to meet student needs more efficiently, but it is still far from ideal. It requires the co-operation of all the professors, teachers, research and extension workers of the College, with the Dean of Studies and the Head of Research and Experimentation. The College Dean has an assistant of associate professor rank who, as actual administrator of student practice work, devises plans for practice, prepares meetings and discussion groups, assigns work to students, keeps records and cares for various details regarding student practice. Stations of College Experimental Education (some account of which is given on page 13), People's Schools in the area, the College Farm and Dairy, the Broadcasting Station, Handicrafts Shop, Library and Laboratories are all places where students do practice work under the guidance of assigned professors and research and extension workers.

Each practice student (or group of students), after being assigned to a special field or locality (where he must live if it is some distance away from the Campus), has first to make a simple survey of the assigned area, write out a plan for his semester or summer practice work, have it approved by his field consultant, and then send it to the Dean's office. He must also hand in weekly, monthly and final re-

Practice students mounting specimens for use in card method.

Agricultural student (standing) points out a plant disease to a co-operating farmer. (photo: Hugh Hubbard)

ports of his work. He is often, of course, given supervision and guidance by his professor or consultant in the course of his work, though everything must be done on his own initiative. Creative ability is required and highly rated.

No student is allowed to graduate if he fails in any of his practice work. In general, students are much more interested in field practice than in ordinary classroom study. The number of credits on general practice work are not large in comparison with those given to the regular courses of study; but each credit given to practice activity represents much more work than the latter; and many classroom courses have their own practice and laboratory or field work, which is not counted as general practice. The required credits for general practice are as follows:

1. For the Departments of Social Education and Agricultural Education:

a) Semester Practice beginning from the 1st semester of Sophomore year and ending in the 1st semester of the Senior year – one credit for each semester, each credit equivalent to at least four hours of work each week	
Total for 5 semesters	5 credits
b) Summer Practice work for two summers after the Sophomore and Junior years, one credit for each semester representing at least one whole month of work	
Total for 2 summers	2 credits
c) Concentrated Practice – one whole semester in the fourth year is devoted to field practice without taking any classroom course on the Campus	
Total	5 credits
Grand total	12 credits

2. For the two Two-year Courses:
   a) Semester Practice, beginning from the second semester of the first year, one credit for each semester . . . . . 2 credits
   b) Summer Practice Work for one summer . . . . . 1 credit
   c) Concentrated Practice – a period of two to three months or at least the time-equivalent of one half semester of the last half year is devoted to concentrated practice for which is given a total of . . . . . 3 credits

   Grand total 6 credits

Student help in the work of research and experimentation

As mentioned above, the College has a Department of Research and Experimentation, which includes three divisions: Research and Project-making, Editing and Publishing, and Experimentation and Extension. Each division is headed by a professor or an associate professor and, under him, there are a few assistants or associates and a number of practice students. Most of the work is done by practice students under the supervision and guidance of the professors. Many research and experimental project have been carried out, but only two of the important projects are described below in somewhat fuller detail:

1. Experiments on the card method of teaching adults (and over-age children). Cards of various kinds, including pictures, models, specimens, and filmstrips, are effective media for teaching both adults and children. The method on which the College is experimenting is not only a method of teaching and learning but also a new approach to curricular organization for adult and child education. For teaching adult illiterates, the educational procedure consists of three steps: the learning of symbols and characters, preparatory self-learning; and complete self-learning. In character-learning, there are two forms of teaching. One is the sending of cards to the learners' home by selected school children who act as young tutors. (They make friends with the adult illiterates scattered over the village, who are unable or unwilling to attend a class. Word, phrase, or even sentence cards are given to the learners in their own homes, and are usually hung on the object represented. The young tutors frequent these homes, give regular individual teaching, and change to new sets of cards). The other method is classroom teaching. Teaching materials are grouped into five big units, namely, My Body, My Family, My School, My Village or Town, and Knowledge of Communications. In the class, the adult also learns penmanship, spelling, and sentence construction.

The second step, preparatory self-learning, begins as soon as the learner has command of about 800 characters[1]. During this step, the learners are grouped together for one to two hours a day in a classroom, for one to two months. Besides learning more characters, they are helped to learn phonetic symbols and simple arithmetic, use dictionaries, read simple readers, and make notes. For the third step, the learners do not need to come to a class but study books in their own homes. More than 200 books on common knowledge, and thirty-two books on mathematics have been selected for them to study by themselves. For each book, a self-learning guidance card is made to help the learner master the content and answer the assigned questions. When he has finished reading fifty books, he is considered a graduate of the adult school.

This card-method, suitably adapted, is used also in children's education.

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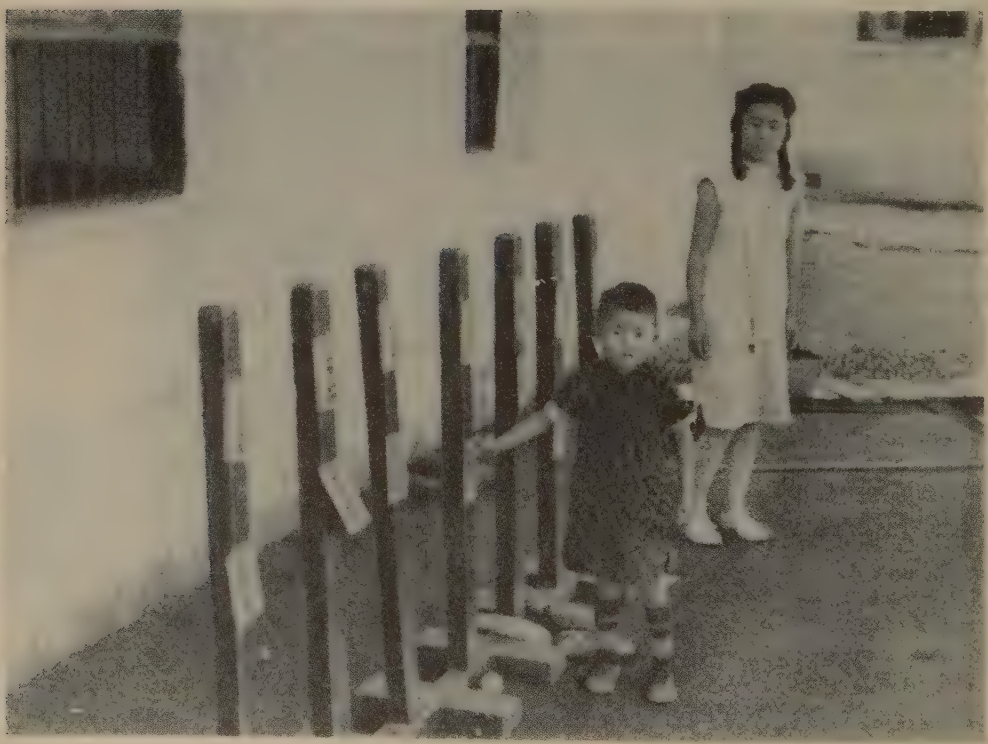
[1] i. e. a minimum for reading Chinese.

2. Compiling and editing of text-books and reading materials for adult schools and classes. The Division of Editing and Publishing has only one full-time assistant and a clerk. Most of the work is done by upper division practice students under the direction of the Division head and other professors. A year ago a series of four readers for the lower fundamental education adult class (a combined text of Chinese literacy and common knowledge) was compiled by the Division, and many thousand copies have been sold through the publishing house. During this year separate texts on Chinese literacy, common knowledge, arithmetic, and music have been compiled for both lower and upper classes of adult schools at the order of the Ministry of Education. Texts on Chinese literacy, arithmetic, and common knowledge for the two-year primary school for over-age children are also being compiled. Drafts of supplementary reading matter for use in continuation education already finished are: *Modern Citizen*, *How to Use the Four Civic Rights*, *What Is Local Self-government*, *Protect Your Homeland*, *The Former and the Present Town Magistrates*, *The Weeping Farmer*, etc.

As to regular periodicals, the College can only issue at present the monthly magazine *Education and the Masses*, due to financial handicaps. This is authoritative reading matter for workers and students of social education. *The People's Weekly* has long been discontinued, and will not be resumed until the financial status of the College improves.

Card method applied to primary school. The pupil matches his wooden slab with the one on the post and the object below – in this case an apple. (photo: Hugh Hubbard)



A wall-newspaper.

Student activities in differert Stations of the College Experimental Area

1. Hwang-hang Station

Hwang-hang is situated about two miles to the south-west of the College. It comprises three villages, with a total population of 894 persons. Before the war, the College had laid a firm foundation of mass education in this area. After the war, different kinds of educational activities have been gradually restored. The centre of all activities is the Experimental People's School in the upper village with an attendance of 157 children. In the evening a class for over-age illiterate children is conducted in the same school with regular attendance of over thirty. Other activities of the practice students in this area are enumerated as follows:

Visiting Lecture Corps (Practice students, divided into several groups, each group responsible for one district of the area, pay regular visits to farmers' homes. From ten to fifteen persons assemble to attend lectures on politics, livelihood, hygiene, etc.); People's Tea-house (opened for three hours on Monday and Thursday evening); reading-room (opened four evenings a week); recreation-room; wall-newspaper (published once every ten days); moving pictures (shown twice a week); improved seeds of rice and wheat given to demonstration farmers; the injection of practically all the hogs in the area with preventive serums; the distribution of water-purifying medicine; the organization of a summer vacation club for children; the writing of letters for farmers; the promotion of handicraft education.

A workshop has been established by the College at the Station to teach poor farmers such handicrafts as making straw mats, baskets and other utensils, knitting socks, and making clothes. Over thirty women work in the shop.

2. Kao-chang-an Station

Kao-chang-an is situated about one mile to the north of the College. In this area co-operative societies have been organized under the guidance of the College and have made great progress. Regular lectures on co-operation are given to the farmers, sometimes illustrated with lantern slides or moving pictures to arouse their interest. Social and business meetings are held from time to time to solve problems of the co-operative society and a co-operative youth society has been organized to train rural youths in co-operative undertakings and morality.

In this Station the practice students also maintain two mass education schools; a young people's chorus with forty-one participants who meet regularly in a farmer's home, and five Kuo-min or People's Schools.

Other activities of the Station may be briefly listed as follows:
Reading-rooms for children and adults; wall-newspapers; specially designated clinics; demonstration homes; farmers' social meetings; Rural Youth Society; Fire Prevention Society; demonstration farms; guidance in silkworm breeding; guidance in lotus-root and water-cress growing; promoting constructive entertainments; vaccination, anti-cholera injection, and water-purifying work.

3. City Centre

The station is situated in the city's most populous district. A continuation school at the level of secondary education is conducted there with a total enrolment of 150, as well as a women's evening school with an attendance of 120, and a People's School at West Gate of the City with an attendance of 320, grouped into three classes.

4. Shieh-chiao-tou

The station is situated east of the College. It comprises an office, a reading-room, a women's class of 20, a children's class of 30, and the regular publication of wall-newspapers – all managed by the practice students of the College.

5. Hwei-ho Experimental Central Kuo-min School

There are 261 children divided into six classes (including three classes for card system) in this school. (Adult classes are closed at present because of the coming of harvest time, but the students of the fifth and sixth grades continue to teach in the homes using the card method.)

Activities of Audio-visual Education

The Special Two-year Course of Audio-visual Education helps forward such activities in the experimental areas. Unfortunately most of the equipment for audio-visual education was lost during the war. After rehabilitation, a broadcasting station of 150 watts and 1,110 k. c. was established by the practice students themselves under teachers' guidance. The station broadcasts a ten-hour daily programme which consists chiefly of:

(a) Lectures on technical knowledge or problems
(b) Common sense lectures (including civics, geography, history, international affairs, hygiene, science, production, and home economics).
(c) Social service (including answering questions, employment guidance and service, and correspondence).
(d) Recreation (including song and harmonicon teaching. Song sheets are distributed by the station free of charge).

On the visual side there is a great shortage of equipment and materials. Nevertheless the College manages to give training to students in the making of cartoons and filmstrips for teaching purposes. Regular shows are given by practice students at the various College Stations.

Contact between the College and Past Students

In the past twenty years the College has graduated a total of 1,568 students. Every year, on 15th March, many of these graduates come back to the College to celebrate the anniversary of their alma mater; contributions and gifts are then offered to the College as a mark of appreciation.

By now, former graduates are filling many of the posts on the College staff. But the majority are scattered over quite a wide area in China, doing work of social education and agricultural and rural reconstruction. A great part of the time in the President's and the Dean's offices is devoted to correspondence with graduates, giving, among other things, employment advice.

The percentages of graduates engaged in different lines of work may be listed as follows: (i) in agricultural banking, country co-operative and extension agencies, and social administration, 30 per cent; (ii) in agricultural and other vocational middle schools and secondary normal schools, 20 per cent; (iii) in colleges and universities as teachers and workers of educational and agricultural extension, 10 per cent; (iv) in administrative work of social education and social welfare, 20 per cent; (v) in municipal and local governments, 5 per cent; (vi) in the political or news departments of army and navy, 5 per cent; (vii) studying abroad, 1 per cent; (viii) deceased and unknown, 9 per cent.

Conclusions

The training method of this College differs markedly from that used in other universities. The strong points of such a method may be summed up briefly as follows:

1. The students appreciate and understand practical problems after constant practice in different experimental areas of the College.
2. They are accustomed to making friendly acquaintance with farmers when they live in the country.
3. They cultivate good habits of working in co-operation with others.

The weak points are:

1. As the curriculum of the College is restricted by the government, it is not properly co-ordinated with the practice work.
2. The College fails to attain its ideals because of financial handicaps and insufficient equipment.
3. The plans of the College cannot be carried out undisturbed under the present political and social conditions.

Kiangsu Provincial College of Education,
October 1948.

CULTURAL MISSIONS IN MEXICO

by Guillermo Bonilla y Segura

This is the first of two articles by the head of Mexico's Department of Out-of-school Education. He deals here with the question of forming a team of instructors for fundamental education work.

Following the triumph of the Mexican Social Revolution and the promulgation of the 1917 Constitution, the Federal Government in 1922 initiated an intensive campaign for the provision of primary schools for the peasantry – both Indian and half-breed. This campaign was planned to fulfil the promise of the Revolution to improve the living conditions of the rural population through a suitable system of education. In that year no less than 1,000 schools were founded under mission teachers who, as isolated units, served the most distant parts of the country. The number of schools continued to increase until in 1924 it reached the large figure of 3,000. These establishments were called *rural schools* and their curricula included reading, writing and arithmetic, with the elements of geography, history and civics; but their most important task was the eminently social one of assisting the peasantry to solve their own economic and agricultural problems.

Very soon the rapid growth of the rural education service revealed the need for training fresh rural teachers, while at the same time securing a higher technical standard among the teachers already in service, without interrupting their work. The teachers first recruited had been people who were willing enough, but lacking adequate professional qualifications for the practice of teaching. For the first of these purposes, rural teachers' training colleges were founded; while the Cultural Missions were designed to provide a solution for the second.

About the end of 1924 the first groups of picked teachers left Mexico City with the task of holding refresher courses of four to six weeks, particularly in the State capitals, for the benefit of all teachers, whether they were working in urban or in rural surroundings. These travelling groups of instructors included specialists who could give practical instruction in small industries and manual work, such work as could be introduced forthwith into the schools (soap-making, perfume distillation, preserving of fruits and vegetables, tanning).

In 1925 the experiment was repeated, and, in the light of the results obtained, the Ministry of Education decided to set up a permanent service of Cultural Missions for the benefit of teachers who lacked the necessary technical training.

In March 1926, the first six Rural Cultural Missions began their work by organizing institutes to give four to six weeks' refresher courses for teachers who came in from rural schools over a wide area. Courses accommodated thirty to a hundred students, classified in two or three groups according to their previous training. The syllabus included elementary educational science; the techniques of teaching the various 'Spanish' subjects (reading, writing, orthography, composition); the techniques of teaching arithmetic, social science, music and singing, gymnastics and recreation, agriculture, the breeding of domestic animals, small rural industries, hygiene, first aid and domestic work. A most interesting feature of these courses was that student teachers were able to exchange experiences in the social work which they were accomplishing with such marked success in their own communities. This led to the development of a fruitful spirit of faith in the possibilities of Mexican redemption through education.

In the course of twelve years, the Cultural Missions underwent changes both in their terms of reference and in their structure, until their disappearance in 1938 for reasons which it would be irrelevant to deal with in this short report.

Revival

The meritorious work accomplished by these bodies, particularly in their first eight years of life, had not been forgotten; both teachers and whole villages remembered it with affection, and accordingly President Manuel Avila Camacho, at the beginning of the second year of his term, made provision for the re-establishment of this important service. In 1943 the Cultural Mission service was planned afresh. A careful study was made of past achievements – and failures – as well as of the underlying causes of the country's burden of ignorance and poverty.

The object was *to set up a body for true out-of-school education, able effectively to influence the individual, the family and the community towards the progressive improvement of their precarious living conditions.*

The experience of two decades of rural schools has shown how slow is the process of transforming the village through the medium of the primary school alone; and the rate is reduced still further, proportionately to the degree of ignorance of the family, since the family's restraining influence not merely makes the beneficial action of the school more difficult, but tends to cancel it out completely. In backward surroundings the child who has received primary education for four to six years finds himself faced, on leaving school, with the problem either of reverting to the style of living of his family, or of cutting himself off from it to seek his proper level in other surroundings.

Aims and methods

Hence, without seeking to discredit or depreciate the efforts of the conventional primary school, the Cultural Missions aim at transforming the physical and human environment in which the new generations are growing up. In general terms, they

do this by stimulating the development of initiative and by utilizing the moral and physical resources of the individual, the family and the whole community to combat poverty, improve the people's health, raise the level of home life, encourage good relations between villages and individuals and destroy ignorance in all its forms.

General terms have to be translated into action, and it is worth while to trace some of the activities of the Cultural Missions. They concentrate on giving the peasantry practical instruction in farming matters – how to fertilize and conserve soil, select seed, use perpetual streams for the irrigation of areas large or small, secure a better output in the breeding of domestic animals, combat plague and epizootic diseases. Such instruction leads each community to seek the best means of using its natural resources through knowledge of a thousand small points, all of which, though small in themselves, are important in the development of a balanced family economy.

The Cultural Missions are also concerned with instructing the people in such topics of health and domestic life as will diminish the high rate of infant mortality and the number of persons incapacitated for productive work. In practice, they help the people to make actual improvements in their dwelling houses to make them more hygienic and comfortable; to manufacture furniture; to construct such 'extras' as bathrooms, closets, hen-houses, pigsties, sheepfolds, and dove-cotes; to

Our people need more and more water for their crops. All difficulties are overcome by joint action and the advice of the cultural mission.

lay out orchards and kitchen gardens; to develop a varied and nutritious diet through better use of available foods; to make simple garments; to introduce small home industries (bee-keeping, the preserving of fruits, meat and vegetables, the making of dairy products); to train women in the care of children, in sick nursing, in the management of the family's economic resources and in organization of household chores in order to free them from their present heavy burden.

The influence of the missions is no less important in the civic life and amusements of the communities. Through recreation, organized games, dancing, music, theatrical performances, simple debates, film shows ard radio programmes, they contrive to modify the taciturn or apathetic nature of the peasants by surrounding them with an atmosphere of healthy contentment. Furthermore, with a view to tightening the bonds of friendship between the families and villages within the area of each mission, there are competitions, regional fairs, civic festivals, social gatherings and cultural activities of every type, which serve to direct the combative instinct so highly developed in our rural areas towards the moral uplift of the individual and of the community.

Similarly, the Cultural Missions exercise a marked influence by encouraging village communities to undertake public works. Their achievements already include roads, bridges, markets, school buildings, minor irrigation systems, drinking-water systems, small electric light plants and other enterprises of varying importance designed to meet specific needs of human communities.

Their work would be incomplete if the missions took no thought for the development of general culture through the literacy campaign. They improvise primary schools where these are entirely lacking, establish modest libraries and organize social centres.

Organization

To develop this comprehensive programme, institutes are under the direction of instructors, of teachers' training school standard, with wide experience of the problems of rural life. The staff includes instructors in agriculture, medical assistants or nurses, home workers, games masters, music teachers, instructors in brick-laying, carpentry, and finally the necessary craft or trade specialists who are able to show how to make the best use of the raw materials available in each area. Generally speaking, there is one staff-member to deal with each of the subjects indicated; but in some cases it proves necessary to increase the number of nurses, homeworkers or agricultural instructors.

Although the tasks of the mission staff are clearly defined, all work is co-ordinated by an annual plan which is worked out in co-operation with the local authorities and the most representative individuals in the community. Each member of the mission therefore realizes how his own field of work fits in with that of the others, and with the community life as a whole.

The mission zones consist of between five and ten local communities, account being taken of the density of population and difficulties in covering the area; in a few instances the number is higher. According to the economic, agricultural and social problems requiring attention, the cycle of work is spread over one to five or more years in each zone. Within the zone, a mission works intensively in one community at a time, but it keeps in touch with adjacent villages already dealt with.

The basis of each mission's activities is the appropriate organization of each community. This usually takes the form of special committees for the encouragement of agriculture and stock-raising, of manufactures and industries, of hygiene and health, of home-life improvement, of civic and recreational activities, of public works, etc. Each committee has a chairman, a secretary, a treasurer and members. The chairmen of committees together make up the general committee of economic and cul-

tural action for the village, and its chairman is always the chief local official or his deputy. The mission instructors act only as advisers to these bodies, as the object is *to stimulate the initiative of the villages by making them responsible for carrying through the activities planned in co-operation with their representatives.*

It should be added that the mission's work is invariably done in this way. Thus the physical and moral resources of the individual and the community are brought into play, good habits are formed, social blemishes eliminated, and the ideal of generous service is encouraged.

Administration

At present there are three types of Cultural Mission: rural missions, special missions and motorized missions. There are 48 of the first class operating in the poorest and culturally most backward areas. There are seven of the second class, four being designed to work in the poorer quarters and suburbs of Mexico City, where there are problems perhaps more acute than in the country areas; all seven are itinerant. There are sixteen motorized missions. These are equipped with lorries fitted with cinema apparatus, radio receiving sets, sound amplifiers, microphones, gramophones, lighting plants and libraries; their areas comprise twenty to thirty villages connected by roads suitable for motor vehicles, to enable the areas to be covered as frequently as possible. In many cases the roads are maintained by the villages which the mission serves. During the year, four further missions of this type have been

Articles sewn and embroidered will go to the improvement of home life.

A dwelling constructed of local materials.

organized, and two others which will be supplied with launches similarly fitted out to work among the riverine villages of the Papaloapan Valley and the Tabasco State river system.

Efforts are being made to supply cinema apparatus, radio sets, gramophone pickups, sound amplifiers, microphones, lighting plants and libraries to the rural cultural missions and to organize ten further missions of the itinerant type with the same equipment, but suitably arranged for transport by mule in isolated areas where there are no roads for wheeled vehicles.

The salaries* of instructors are according to the following monthly scale:

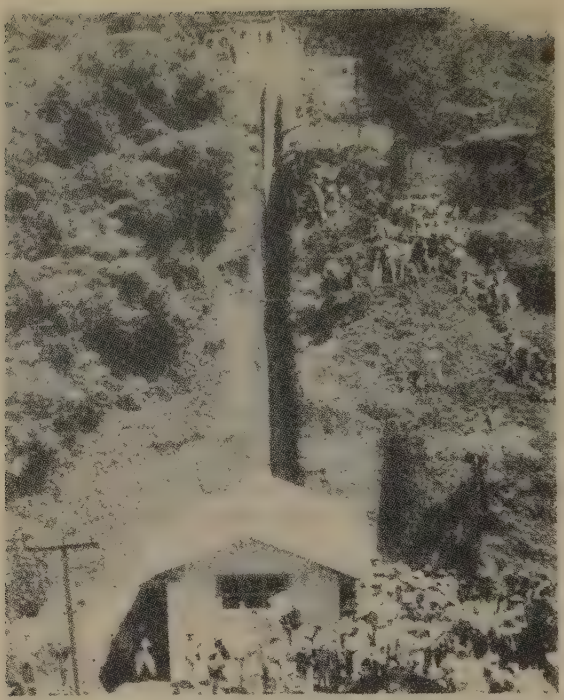
	MEXICAN PESOS		MEXICAN PESOS	
Head of cultural mission	Class A	511	Class B	480
Mission instructor	Class A	404	Class B	371
Mission instructor	Class C	316	Class D	226
Medical assistant		376		
Agronomist		376		
Supervisors		653		

A candidate for appointment as head of a mission must be a qualified instructor in teachers' training colleges, and have at least five years' approved service and wide experience in the problems of rural life; class A, B, C instructors' appointments are for home workers, nurses, agricultural instructors, instructors in recreational activities and specialist instructors having a degree or diploma as proof of efficiency; class D appointments cover carpentry, masonry and iron-working instructors and instructors in handicrafts in general. However, all personnel can be promoted to higher categories if they show ability, diligence and the spirit of service in the course of their duties.

The monthly cost of staff for a typical Cultural Mission is:

	SALARY IN PESOS
1 head of mission, class A	511
1 agricultural instructor, class B	371
1 home worker, class B	371
1 nurse midwife	371
1 music teacher	371
1 art teacher	371

* 4.848 pesos = 1 U.S. dollar. (This exchange rate is variable.)



Before this mountain stream could be harnessed for electricity and irrigation, a canal 8 km. long was constructed through the jungle.

	SALARY IN PESOS
1 instructor in recreational activities, class C	316
1 instructor in meat, fruit, and vegetable preserving, class C	316
1 carpenter, class B	226
1 building instructor, class D	226
1 iron-working instructor, class D	226
1 instructor in tanning and leather work, class D	226
2 additional instructors in other trades or crafts, class D	452
5 reading instructors in receipt of a fee of 60 pesos per month for two hours' work per day, five days per week	300
Total per month	4,654
Total per year	55,848

Some missions have fewer instructors but the number is never less than 5.

The special Cultural Missions for work in the slum quarters and suburbs of Mexico City generally comprise: one head of mission, two doctors, one nurse, two home workers, one music teacher, one instructor in recreational activities, one instructor in fruit and vegetable preserving, one carpenter, one mason and ten reading instructors in receipt of 75 pesos per month. The scale of salaries is the same as for the rural cultural missions.

The motorized missions have the following staff:

1 head of mission (a teachers' training college instructor)	700
1 chauffeur/cinema operator	500
1 assistant	300

The above sums include travelling expenses.

In addition to their basic salary, instructors in rural and special cultural missions receive an increment for each year of service; members of rural cultural missions

Missions awaken communal initiative. Groups from several villages near Popacatepetl meet and decide to construct a bridge which will link them with the main motor road system.

receive a further supplement if they are working in unhealthy areas or areas where the cost of living is high, and a small allocation for local travelling expenses within their area.

The supervisory service is in the hands of a body of eight inspectors, whose monthly salary is 653 pesos plus travelling allowances and reimbursement of charges for railway travel.

In the current year the general budget for the Cultural Mission Service including headquarters staff, is as follows:

	MEXICAN PESOS
Salaries:	
H. Q. staff (head of services, 16 administrative workers, 8 inspectors) Motorized missions (staff of 49) Heads of missions (46) Instructors of all classes (397)	2,046,456
Allowances, increments, travel	277,710
Sundry purchases	200,000
Fuel and maintenance costs of 16 motorized missions	103,000
Estimated cost 4 motorized, 2 riverine missions	196,000
Purchases of mules, cinema, radio and lighting equipment	177,000
Grand total $	3,000,166

Mexico City.
11 October 1948.

Arrival of a motorized mission in the village.

ON DEFINING FUNDAMENTAL EDUCATION

When the general conference of unesco adopted in its first programme for 1947 a proposal from the Preparatory Commission – 'to help Member States, who desire such help, to establish a minimum Fundamental Education for all their citizens', the secretariat was instructed to define more precisely the meaning of 'a minimum fundamental education'.

This proved to be an interesting, complex and inconclusive task. In fact, it is impossible to arrive at any exact or final definition of fundamental education, since it will be different in each context, varying in approach and content with the different problems and requirements of the physical and social environment. However, a working paper was laid before the Second General Conference of Unesco with the title: 'Fundamental Education – A Definition and Programme', and a revised version of this will soon be published as the first of a series of monographs from our Clearing House.

There was a tendency in Unesco's early thinking to regard fundamental education simply as a world campaign against illiteracy. It soon became obvious, however, that the skills of reading and writing were no more than a means – although important and ultimately indispensable – to a wider end. This wider purpose is expressed in the words of Unesco's definition – 'to help men and women to live fuller and happier lives in adjustment with their changing environment, to develop the best elements in their own culture, and to achieve the social and economic progress which will enable them to take their place in the modern world'.

This, of course, is no less than a progressive definition of the aims of Education. In so far as it pursues these aims of providing a foundation for a fuller life, all education is 'fundamental' and is needed by every man, woman and child. Certainly it is as much needed by the citizens of so-called 'advanced civilizations' – the highly specialized products of man's industrial evolution, with their neuroses and tensions and their boundless power of destroying each other and devastating their natural environment – as by the illiterate peasant or the 'primitive' tribesman.

Nevertheless, desirable as it may be to reinterpret educational philosophy or to reform existing education systems, it was not with this in mind that Unesco's General Conference asked for a definition of a minimum fundamental education. Rather their resolution arose from a deep sense of indignation that in the middle of the 20th century, when men were applying high scientific skill to control the elemental forces of the earth, more than half of the human race were still living in conditions of mental and physical poverty not far removed from those of the early iron age, and – in the words of James Yen's now well-known sentence – 'three-fourths of the world's population were under-housed, under-clothed, under-fed and illiterate'.

The main concern, then, was to provide more equal access to educational opportunity. Unesco's statement of the scope of fundamental education reflects this need: – 'Fundamental education will be specially and immediately concerned with the less industrially developed areas of the world, and with underprivileged groups in industrialized countries, where the education provided falls below an essential minimum – where ignorance and illiteracy, disease and poverty constitute a hindrance to human progress and a barrier to international understanding and world prosperity'.

There is, however, no place for paternalism in the approach to these problems. Anyone who has lived with illiterate and technologically 'backward' people knows that they possess essential values and personal qualities which are too often lacking in the streamlined, sanitary civilization of 'industrial man'. So in seeking to bring simple scientific knowledge and essential technical skills to less industrially developed areas, fundamental education must not try to impose an alien 'civilization', but rather 'to help people to develop the best elements in their own culture'.

The provision of universal, free and compulsory primary education for children is clearly an ultimate ideal for all fundamental education programmes. Such programmes must, however, 'be concentrated first upon the most pressing needs and problems of each particular community', and it may be found that a campaign for better health or improved cultivation, directed to the adult population, may take precedence even over the provision of the first school.

Moreover, fundamental education programmes should fit into a national education system. Secondary, university or higher technical education, although outside the operational scope of fundamental education, are none the less essential to it, first to provide an outlet for the aspirations of the individual (it is a declared aim of fundamental education to provide 'a first step to further education'), and, secondly, to train the future teachers, extension workers and leaders of educational, social and economic activity for the community.

Fundamental education itself 'will aim to reach all sections of the community, children and adults, women as well as men', to stimulate their initiative, to encourage their active co-operation, to give them the basic knowledge and rudimentary skills necessary to their social and economic progress. It must not be assumed, however, that low living standards can be materially improved, beyond a certain point, by educational means alone. Education should, therefore, be integrated with economic development schemes (agricultural improvement, co-operatives, the development of local crafts and industries) with social services (such as medical services and sanitary engineering), and with more enlightened and democratic methods of local government.

Integration is, in fact, a key principle. In a local 'project', the schoolmaster, the doctor or health worker, the agricultural expert, the craftsman, indeed all concerned with the welfare and development of the community, should co-operate to work out and apply educational means to the solution of their problems. No less important will be integration at the national level between ministries and departments of government and non-government organizations in planning and applying fundamental education programmes.

Many hours have been spent in debate on the content and essential elements of fundamental education programmes. It will be left to the first monograph in our series to suggest what these may be. However, in its title – *Fundamental Education – a Definition and Programme* – the most significant word is the indefinite article. The real pattern of fundamental education will emerge from factual accounts of the way it is working in all parts of the world – such accounts as Unesco is now obtaining through its Clearing House, and will be distributing in its technical information service and publishing in each number of this Bulletin.

MASS MEDIA
IN
FUNDAMENTAL
EDUCATION

A rubric supplied by
Unesco's Department
of Mass Communications

FILMS AND FUNDAMENTAL EDUCATION

Most people these days seem prepared to speak confidently, and sometimes glibly, about the valuable contribution which the film can make, or should make, in the field of fundamental education; but for those who like to speak with some knowledge of the facts a publication has just appeared which is well worth noting. This is Unesco's *Report of the Commission on Technical Needs in Press, Film and Radio for 1948*. It will obviously not give them all the facts but it should at least give them the facts concerning the relevant field in 17 countries; and in total this represents a rather substantial body of useful knowledge. The report, which is a sequel to that of 1947 dealing with 12 war-devastated countries, is based on the surveys of field workers in 17 countries of Latin-America, the Far East, and Europe. It deals of course with a number of aspects of mass communication besides the cinema, and, even in the field of the cinema, with many aspects of that medium besides the educational film. Yet in reading through the detailed reports of the field workers and the conclusions and recommendations of the sub-committee, one is struck by the frequency, the emphasis, and indeed the urgency with which the subject is mentioned. It is, almost, the theme-song of the film section of the whole Unesco report.

For instance, there is this statement from the Conclusions: *While the achievements in most of the countries under review are modest, there is a very active interest in the development of the production, distribution and use of educational films. This is particularly true in those countries of Asia and Latin-America which have large problems arising from the illiteracy of a high proportion of their populations. Educational films have an enormous contribution to make in conquering illiteracy and disseminating information in these countries.* And again: *There is a high proportion of illiteracy in all the countries reviewed in Latin-America. Educational films not only provide a means for communicating important ideas to illiterate people but they also provide an excellent method for eliminating illiteracy itself. It is important, therefore that the work of the experts in fundamental education should be closely co-ordinated with the work of the experts in mass communication, so that the quickest possible results might be achieved.*

In the space here available, it is not possible to do more than assemble and digest a few of the more impressive references to the educational film as they appear in some of the separate surveys. This may be of value if it serves to focus attention on the major body of information which exists and is now available in Unesco's publication.

Cuba: The situation in the educational film field is not very favourable, mainly due to a lack of information regarding educational films and, therefore, no full realization exists of their utility and value. There is also the problem of schools in remote rural areas that are not connected with an electrical network, and which also experience the problem of giving screenings during daytime in closed and darkened rooms in a climate which can be considered as tropical. (The two problems men-

tioned here are a recurring theme in a number of the reports and they draw attention, in particular, to the need for devising cheap projection equipment not dependent on electric networks). However, in spite of these problems 'many people in Cuba feel that the use of educational films should be developed and that difficulties should be overcome, perhaps by setting up an organization for audio-visual education . . .'

Dominican Republic: Here there is an active interest in the field of educational films and it would seem, indeed, that this country could be of help to other countries in the areas which want to undertake or develop educational film activities.

Ecuador: The use of educational films in Ecuador is in its embryonic stage; however, there is growing interest, and it is obvious (says the report) that in this country where a fairly high percentage of the population is illiterate, the use of such material on a larger scale and in a more systematic manner than at present would have great significance in educational and social development.

Haiti: 'No use is made of educational films for teaching in the schools and the universities and no systematic use of such films is made for adult education . . . At the same time the Government fully realizes the value of the help educational films would give in a country where the proportion of illiteracy is high and where health conditions leave much to be desired . . . Important results could be achieved in this field even with relatively small resources.'

Honduras: '. . . the Government of Honduras has realized the great value of the educational cinema, and experience has shown that the use of sound films dubbed in Spanish is definitely preferred to sub-titling, it being considered that almost all foreign educational films could be made to suit the purposes of education in Honduras by the addition of a Spanish sound-track . . . The question of a possible organization, guided by a prominent expert serving the whole of Central America for the exhibition of educational films, seems to deserve attention'.

Mexico: 'The cultural missions which are operating in this country in the campaign against illiteracy are using educational films in a very restricted way. However, there is a need in Mexico to develop the use of films in schools and for general and specialized audiences. Very important results could undoubtedly be achieved in this field and a very large task lies ahead'.

Peru: '. . . a big task lies ahead in Peru to develop the use of educational films for both general and specialized audiences outside schools'.

Uruguay: '. . . the use of educational films is making progress in Uruguay and in coming years it should be developed still further . . . but more direct help is needed'.

Venezuela: Educational films are just beginning to be used in Venezuela by the Ministry of Education (which has a School Film Division) and by other Ministries . . . but assistance is needed for the further development of this material.

Far East: Though the problems concerning the educational film are in many respects the same in Asia as in Latin-America, the problem is complicated by the variety of languages written and spoken in Asia, whereas in Latin-America, Spanish is widespread. In India, in particular, the problem is vast because of the density of population, the linguistic and religious differences and the high proportion of illiteracy (the field survey report sets illiteracy in India at over 85%). The

general conclusion reached is that in all the Far Eastern countries surveyed (these included Burma, Malaya, Pakistan, and Singapore besides India) expert guidance would contribute to the development of educational films.

What has been given here is no more than a sketch of the situation as revealed in the full Unesco Technical Needs Report for 1948, nor does it include any of the specific recommendations of the Film Sub-Commission for tackling the situation. Everything goes to confirm on the one hand that the film is potentially a major weapon in the struggle against ignorance and for world peace; and on the other that intensive research is required before its possibilities can be realized in relation to illiterate or newly literate peoples.

REVIEWS AND NOTES

ON PUBLICATIONS RECEIVED

ROAD TO SURVIVAL. William Vogt. 335 pp.
William Sloane Associates, Inc., New York. 1948. $4.

The gap between formal schooling and land conservation is to some extent bridged by what we now term fundamental education; so that no excuse is needed for reviewing Mr. Vogt's book in this Bulletin. He deals in simple terms with the principles that govern man's relation to the physical environment – in particular, with the balance between populations and the soil which feeds them. After analysing several modern concepts – such as progress, industrialization, standard of living – from this point of view, the author discusses in turn each of the earth's regions. His conclusions are gloomy: rising populations everywhere, to accelerate the destruction of an already inadequate soil.

Perhaps the most valuable feature of this book is Mr. Vogt's insistence that the makers of policy (and that includes educators at all levels) should adopt an integrated view of their problems. It is not enough to educate people blindly for 'better living', without regard to local resources, or national or international ones. Since such measures usually lead to inmediate population growth, the author concludes that any 'progressive' step defeats itself unless voluntary population checks are included. A controversial point this – but it deserves the consideration of serious educators.

SLOAN EXPERIMENT IN APPLIED ECONOMICS

In 1939, the Alfred P. Sloan Foundation started a programme in the U. S. A. to raise the living standards of low-income areas through educational measures. Although the war years that followed were not favourable to forward-looking education, the Sloan Project continued to grow; its achievements to date make an impressive contribution to fundamental education.

The experiment is carried on by the Universities of Kentucky, Florida and Vermont in co-operation with schools in the vicinity. The purpose of the project is briefly described as 'the development of curricular methods and instructional materials designed to raise living standards through education particularly in such essentials as food, clothing and shelter'. Each institution has prepared a range of text-books for pupils and manuals for teachers around these three topics of food, clothing and shelter. Parallel experiments in the schools have been concerned with teaching methods, both for traditional classroom subjects and for special school projects, and lead generally to a closer school-community link-up.

Some short notes on text-books selected at random may help to make this review more concrete:

Busy Betty: 24 pp. Florida. Elementary reader, large illustrations in colour, text based on Thorndike word-count. Tells the story of the domestic round in Betty's home, the children's chores and games.

Washday with Mother: 35 pp. Vermont. One of a series entitled 'We care for our clothes'. The story form embodies a number of lessons usually taught more formally in the domestic science class.

Chicks to share: 81 pp. Kentucky. Lithoprinted. One of a series 'You can raise chickens too' for more senior children. Describes how a class of boys and girls set about a chicken-raising project.

Tales from the Salvage Can: 36 pp. Vermont. A slight story, dealing with care and repair of rubber shoes. Numerous cartoon-sketches provide the interest.

At first the three Universities each specialized in a single field, but later the divisions fell away since all programmes were adapted to the full range of community needs. In 1947 the Co-ordinating Committee for the project published *Better Living*, a manual of practical suggestions for schools and homes. This book drew together much of the material embodied simply in the text-books.

In 1947, too, it was felt that experimental results justified wider publicity. Through the American Association of Teacher Colleges a number of other institutions began to share in the programme; and a bulletin, *Applied Economics*, appearing bi-monthly, now gives general news of, and comment on the project. The address of the bulletin editor is 280 Madison Avenue, New York 16, N. Y.

By its very terms of reference the Sloan Project is closely linked to American conditions; but its findings deserve study by fundamental educators in all parts of the world. This applies especially to those in the key positions of teacher-training and school supervision. The materials are sold at nominal cost, and general enquiries should be sent to the address given above.

THE ANCHAU RURAL DEVELOPMENT AND SETTLEMENT SCHEME. T. A. M. Nash. 22 pp.
Plates and diagrams. H. M. S. O., London, for Colonial Office, 1948. 3 s. 6 d. net.

A brief and well-arranged account of an experiment carried out since 1935 in Northern Nigeria, in a sleeping-sickness area. The purpose was to move and concentrate the population into a tsetse-free belt, at the same time introducing economic improvements (new crops, cattle, marketing), health measures (new wells, village planning, improved cleanliness), and mass education. Two points of interest are the thoroughness of the basic surveys, due to team-work between several government departments, and the objective final summary, which records failures as well as successes.

OVERSEA EDUCATION. July 1948. Published for the Secretary of State for the Colonies by H. M. S. O., London. Quarterly. 1 s. net.

This issue carried detailed studies of two teacher-training institutions: one in Mauritius, faced with the problem of a very mixed population, and the other in Sierra Leone, where parallel courses are given to agricultural (and forestry) workers and rural school teachers. An article on a Nigerian literacy campaign by a field worker contains interesting reflections on the practical difficulties that he encountered.

OVERSEA EDUCATION. October 1948
Articles cover a wide range of interest. A practical account from Kenya deals with the problems of a mobile cinema unit, and the author's conclusions are of general educational importance. Two other articles describe a reform school in

Cyprus, and the use of performance tests (Stanford-Binet and Drever-Collins) for measuring intelligence in Nigerian schools.

PROBLEMS OF AFRICAN DEVELOPMENT.
Part I: Land and Labour Part II: Government and People
T. R. Batten, pp. 176 and 180. Oxford University Press, London. 3 s. 6 d. net each.

These two books are written for high school and college students in Africa, and especially for teachers in training. The author intends his work to serve as the basis for discussion-groups in social science and civics, and perhaps the addition of sets of questions for further study might have been helpful. The presentation, starting with economics, then working through education to broader political issues, gives an integrated view of education as such. Those responsible for teacher-training will find Mr. Batten's approach a stimulating one, and useful even in countries where the subject matter of the books is not applicable.

SUGGESTIONS FOR SCIENCE TEACHERS IN DEVASTATED COUNTRIES.
J. P. Stevenson. 88 pages. Unesco 1948.

This newly-published booklet, which shows how teachers lacking elementary scientific equipment can make apparatus from simple everyday materials, is being distributed to schools in war-devastated countries.

The author first explains how science teaching can be commenced without the use of apparatus; and then shows how equipment for experiments in astronomy, meteorology, measurement, heat, light, magnetism, electricity, chemistry and biology can be improvised from materials such as wood, glass-tube, wire, nails, bottles and other household articles.

'These improvisations should not be thought of as makeshifts', the author says in a foreword. 'They, and the exercise of constructing them, are in the best tradition of science and science teaching. All the great scientists have used such apparatus and many have made their greatest discoveries in this way.'

Although prepared for the devastated countries, the book may prove useful elsewhere – wherever, in fact, teachers of science wish to extend the scope of their classes at little cost.

Ministries of Education are free to reproduce the booklet in English or in translation, provided acknowledgement to Unesco is made.